#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018186 Address: 333 Burma Road **Date Inspected:** 14-Nov-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Li Yan Hua. **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No **Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** OBG components.

### **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Mr. Shailesh Wadkar was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA Inspector observed and/or found the following:

Bay 14:

Notification no: 007349.

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% of an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA Inspector has generated MT report for this date. The members are identified as OBG components. The weld designations MT inspected are as follows:

- 1) VP3006-001-001, 002 and 003.
- 2) VP3017-001-004 and 006.

Notification no: 007350.

This QA inspector performed MT of approximately 15% of an area that has been previously tested and accepted by ZPMC QC personnel. This QA Inspector has generated MT report for this date. The members are identified as

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OBG components. The weld designations MT inspected are as follows:

1) SEG3020AP-004.

This QA Inspector observed the following work in progress:

**OBG Seg 13CE:** 

ZPMC NDE personnel performing MT on Vertical Plate – VP3005 (I-ribs on PL3277A). ZPMC QC was identified as Zhong Guo Hai. See attached photo for further information.

ZPMC personnel performing heat straightening on the I-ribs (RS3213C) of Vertical Plate – VP3008A. ZPMC QC was identified as Zhong Guo Hai. Heat straightening was done as per heat straightening report (HSR): 9832. See attached photo for further information.

OBG Seg 13BW:

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3014P-036 [Edge Beam (EB) to Floor Beam (FB), fillet weld]. The welder is identified as 045196 and was observed welding in the 4F position. ZPMC QC was identified as Sun Tian Ling. The welding variables recorded by QC appeared to comply with WPS: B-P-2114-FCM-1.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3014P-077 [Edge Beam (EB) to floor Beam (FB), fillet weld at Panel Point (PP): 122]. The welder is identified as 067888 and was observed welding in the 3F position. ABF QA was identified as Shen Jian. The welding variables appeared to comply with Welding Procedure Specification (WPS): B-T-2133. See attached photo for further details.

The SMAW process on weld joint no: SEG3014K-092 [Longitudinal Diaphragm (LD) to I-rib stiffener, fillet weld at PP 122]. The welder is identified as 067610 and was observed welding in the 4F position. ZPMC QC was identified as Sun Tian Ling. The welding variables recorded by QC appeared to comply with WPS: B-P-2114-FCM-1.

The SMAW process on weld joint no: SEG3015J-138 (LD to I-rib stiffener, fillet weld at PP 123). The welder is identified as 067665 and was observed welding in the 4F position. ZPMC QC was identified as Sun Tian Ling. The welding variables recorded by QC appeared to comply with WPS: B-P-2114-FCM-1.

The FCAW process on weld joint no: SEG3015J-159 [EB to Bottom Panel (BP), CJP weld at PP 123). The welder is identified as 201583 and was observed welding in the 2G position. ZPMC QC was identified as Sun Tian Ling. The welding variables recorded by QC appeared to comply with WPS: B-T-2232-TC-U4b-F.

OBG Seg 13CW:

Repair welding of weld joint no: SEG3015A-011 [Side panel (SP) to SP, complete joint penetration (CJP) weld at PP123.5]. The welder is identified as 045280 and was observed welding in the 3G position. Welding process was

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identified as FCAW. ABF QC was identified as Shen Jian. The welding variables appeared to comply with WPS: 345-FCAW-3G(3F)-FCM-Repair. Repair welding was done as per Welding Repair Report (WRR): B-WR 16852 Rev-0.

#### OBG Seg 14W:

ZPMC personnel doing gas cutting of I-rib stiffener RS3531C on Bottom Panel BP3092A. ZPMC QC was identified as Sun Tian Ling. See attached photo for further details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.









## **Summary of Conversations:**

No significant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang; phone: 15000422372., who represents the Office of Structural Materials for your project.

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**Inspected By:** Wadkar, Sailesh Quality Assurance Inspector **Reviewed By:** Dsouza, Christopher QA Reviewer